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CHILD DEVELOPMENT

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LEVEL OF ASPIRATION IN RELATION TO PERSONALITY FACTORS IN ADOLESCENTS[1]

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Introduction

The aim of this study was to compare the level of aspiration behavior of adolescents differing in selected personality characteristics. Level of aspiration was defined as "the level of future performance in a familiar task, which an individual explicitly undertakes to reach" (1).

Previous studies (1, 2, 3, 5) have indicated that the level of aspiration behavior may be related to underlying personality factors and that it may be used by the subject as an "Ego-protective mechanism," or as a method for maintaining self-esteem and security. The purpose of the present study is to investigate such possible relationships between level of aspiration behavior and certain measures of personality adjustment in adolescents.

The task used in this study consisted of a modified symbol-substitution exercise, using shorthand symbols. It was especially constructed for this study.[2]

Personality adjustment was determined by the Rogers Test of Personality Adjustment (4). Only those subjects making high total scores, (indicative of mal-adjustment), and those making very low scores (indicative of better than average adjustment), were selected as subjects. Additional criteria, such as teachers' ratings, and classroom observations, were used to supplement the test scores.

Subjects

The Rogers Test of Personality Adjustment was administered to the entire seventh and eighth grades of the University High School. Thirty-two subjects were selected from the two grades. They included all subjects whose total scores ranged below 34 ("well-adjusted") and above 40 ("mal-adjusted"). These scores were all corroborated by the teachers' ratings and seemed to reflect feelings of security and insecurity, respectively. The

[1] *This study was directed by Dr. R. H. Ojemann at the Iowa Child Welfare Research Station.*

[2] *A detailed description of the test and procedure can be found in the master's thesis on file in the University of Iowa Library.*

ages of the subjects ranged from 12 to 14 years. The group consisted of eleven girls and twenty-one boys.

The Task

The shorthand task consisted of a graded series of cards, containing letters of the alphabet arranged in random order. The subject was required to substitute shorthand symbols for these letters. A reference card, with the letters and symbols arranged alphabetically, was available to the subject throughout the experiment. Each subject was given a practice period in which to become familiar with the symbols. He was instructed that he was not to memorize, merely to write as many symbols as possible in one-half minute. Ten trials, which were timed, constituted the test series.

The specific instructions for all subjects were as follows:

> "Now I think you are ready to start. On these cards I have the letters of the alphabet arranged in different combinations and all lines are equally difficult. The only difference is that on this card there are 5 letters to a line, on the next 6, etc., up to 15. Now I shall time you to see how many symbols you can write in one-half minute. ... You can choose any card you wish, but I first want you to tell me each time how many letters you expect to do on the next trial. ... I will record the total number of symbols you write on each trial as your score. The idea is to write as many symbols as you can in one-half minute, but also to be as accurate as possible. You will have ten trials."

A record was kept of the subject's estimates and performance. The score was announced as the experimenter wrote it down opposite the estimate previously made. No effort was made to conceal the record from the subject at any time. After each trial, the question was repeated, "Now what do you expect to do next time?"

At the end of the ten trials, the experimenter asked each subject to write as many of the symbols as he could recall without a reference card.[3] He was praised and told that he had done "as well as others in your class," or "better than average," depending on his particular personality needs. The subjects were instructed not to discuss the experiment with anyone, in

[3] *The data were tested as to differences between the two groups in the number of symbols learned, but the difference was not significant.*

order to avoid the setting up of a group average, or standard. All subjects seemed to enjoy the test, probably because it was presented to them as a test to determine how well they could learn to write shorthand. They seemed highly motivated.

Results

The data thus obtained were analyzed as follows:

1) D-scores, defined as the average discrepancy between the estimate and the preceding performance, were calculated by dividing the algebraic sum of discrepancies on each trial by the total number of discrepancies (i.e., 9). The reliability of these scores for both groups combined was found to be .88, as determined by the split-half method and corrected by the Spearman-Brown formula.

For comparison of the two groups, the mean D-scores were calculated by dividing the algebraic sum of the individual D-scores by the number of subjects in each group (N=16).

The results presented below show a statistically significant difference between the two groups:

	Maladjusted[4] Group (N=16)	Well-adjusted[4] Group (N=16)
Mean D-score	0.08	1.14
Difference	1.06	
"t"	3.155	
Significance	beyond 1%	

These data would seem to indicate that, although both means are on the positive side, the maladjusted subjects tended to average approximately zero as a result of making very large over-estimates and under-estimates, whereas the well-adjusted subjects tended to have low-positive mean D-scores, as a result of more or less consistent positive discrepancies. In other words, the maladjusted subject tended to keep his estimates below his performance level, or to make gross compensatory over-estimates. Only in the maladjusted group did negative D-scores occur, whereas none of the well-adjusted subjects showed negative D-scores. This may indicate that for certain maladjusted subjects a possible explanation may be found in their

[4]*The terms "mal-adjusted" and "well-adjusted" shall be used henceforth for convenience in designating those with high and low Rogers scores respectively.*

fear of failure and greater need for success. Thus, by manipulating their estimates, they are able to protect themselves against failure and to insure successes, lending support to the hypothesis that the level of aspiration is an "ego-protective mechanism." (Gould, 1939.)

The well-adjusted subjects, on the other hand, tended more or less consistently to keep their estimates slightly above their performance level. These positive discrepancies appeared to serve the function of incentives, rather than over-estimates, and tended to be realistic, i.e., only one or two points above the previous performance level. Probably one reason that these subjects are able to maintain a positive discrepancy, even despite failures, may be due to their greater feeling of security and self-confidence.

2) Average deviations, defined as the average of the deviations of the individual discrepancies from the D-score, were used as an index of variability. They were calculated by dividing the absolute sum of the deviations from the D-score, disregarding direction of difference, by the number of deviations (i.e., 9). This measure seems important, since two subjects with equal D-scores may have significantly different average deviations.

For comparison of the two groups, the mean of the individual average deviations was calculated for each group. The results are presented below, again showing a statistically significant difference between the two groups:

	Maladjusted Group (N=16)	Well-adjusted Group (N=16)
Mean of average deviations	1.24	0.78
Difference	0.46	
"t"	3.833	
Significance	beyond 1%	

These results seem to indicate that the maladjusted subjects tended to show significantly greater variability in their deviations from the D-score than the well-adjusted subjects. In other words, the maladjusted subjects tended either to over-estimate their ability, creating large positive discrepancies, or to underestimate their ability, yielding large negative discrepancies. The low variability, characteristic of the well-adjusted subjects, probably indicates little more than individual variations and lack of rigidity.

3) Reactions to success and failure. Success was defined as covering all those cases in which performance surpassed the

previous estimate. Success was differentiated from "achievement," which comprised all those cases in which performance was equal to the previous estimate. Failure was defined as covering all those cases in which performance fell below the previous estimate. These operationally defined criteria for success and failure were in most cases corroborated by the subjects' verbal reactions, which were recorded verbatim as the score was announced. "Achievement" was usually experienced as success; the distinction was made chiefly to differentiate between the frequency of successes and achievements in each group. Successes seemed to be more characteristic of the maladjusted subjects, while achievements seemed to characterize the well-adjusted group. The differences in the distribution for success, achievement and failure were found to be statistically significant at the 1 per cent level, as presented below:

	Distribution of Successes		Achievements and Failures	
Group	Total No. possible	Total No. of Successes	Total No. of Achievements	Total No. of Failures
Maladjusted	144	59	20	65
Well-adjusted	144	31	42	71

$X^2 = 16.3$, significant at the 1% level

Reactions to success and failure tended to show significant differences when analyzed in terms of the manner in which the new estimates "E" were shifted in relation to the previous estimate "e." The pertinent data are presented below:

		Reactions to Success		
Group	Total No. Successes	No. of times "E" raised above "e"	No. of times "E" remains equal to "e"	No. of times "E" lowered below "e"
Maladjusted	59	46 (78%)	9 (15%)	4 (7%)
Well-adjusted	31	31 (100%)	0 0	0 0

$X^2 = 5.41$, significant at the 5-10% level

Reactions to success indicate that the well-adjusted subjects tended to raise their estimates after success 100 per cent of the time, whereas the maladjusted subjects again appear to have been less consistent and even occasionally (7%) to have lowered their estimates after success.

More significant, and possibly of diagnostic value, are the

reactions to failure, as presented below:

Group	Total No. Failures	Reactions to Failure: No. of times "E" raised above "e"	No. of times "E" remains equal to "e"	No. of times "E" lowered below "e"
Maladjusted	65	13 (20%)	15 (23%)	37 (57%)
Well-adjusted	71	5 (7%)	46 (65%)	20 (28%)

$X^2 = 21.8$, significant at the 1% level

These data seem to indicate that the maladjusted subjects tended to be much more sensitive to failure, since they lowered their estimates immediately in over 50 per cent of the cases. On the other hand, they tended to compensate for their failures by raising their estimates after failure significantly more often than the well-adjusted subjects. The latter, in contrast, tended characteristically to keep their estimates steady, i.e., they maintained the same estimates and "tried again" despite failure. Only infrequently, and usually after successive failures, did they lower their estimates somewhat. Inspection of the raw data indicates that the maladjusted subjects made much larger and more irregular shifts in their estimates, whereas the well-adjusted subjects tended to make more realistic and smaller adjustments of their estimates in relation to the previous performance.

Qualitative Interpretation of Results

In order to supplement the above quantitative analyses, certain qualitative analyses were made. The subjects were divided according to their D-scores into 1) high-positive, 2) low-positive, and 3) negative discrepancy groups. The data relative to their personality characteristics were derived from certain pertinent questions on the Rogers test, their verbal reactions to the task, etc. In addition, the subjects' I.Q.'s and grade point averages were available.[5]

1) High-positive discrepancy group. A high-positive D-score was defined as any score above +1.1. Of the total group (N=32) twelve subjects fell into this group, five of whom were classified

[5] *It should be noted here that the correlation between I.Q and Rogers score (total) was r = .01, and between grade point average and Rogers score (total) was r = .38. Consequently, these measures may be regarded as relatively independent of the Rogers scores.*

as maladjusted, and seven as well-adjusted. The maladjusted subjects in this group tended to give verbal evidence of insecurity and to show a need to compensate for failures by raising their estimates after failure.

The well-adjusted subjects in this group, on the other hand, tended to show more "tolerance" for failures. Their verbal reactions showed that they were more determined and they did not tend to compensate for failure by raising their estimates.

2) Low-positive discrepancy group. A low-positive D-score was defined as any score ranging from +0.1 to +1.0. Fourteen of the total group fell into this group, with nine being well-adjusted and five mal-adjusted.

The maladjusted subjects in this group constituted a very mixed group and are difficult to describe. The well-adjusted subjects, however, were all characterized by self-confidence and realistic estimates, evidenced by the preponderance of "achievements" over successes.

An interesting and noteworthy difference between the subjects in this group, was found in the type of answers given to the question as to what they wanted to be when they "grow up." The well-adjusted subjects all gave very specific and concrete answers, viz. "research chemist, violinist, ice skater," etc., and in general these tended to be somewhat in accord with their abilities. The maladjusted subjects, on the other hand, without exception checked rather vague generalizations and ideals, such as "I want to be a leader in whatever town I live in," or "I want to be a very great person whom people will talk about" [question 4, Rogers Test (4)].

Thus it appears that the well-adjusted subjects tended to be more realistic, both in their appraisal of their abilities and in their level of aspiration behavior, while the maladjusted subjects seemed to be somewhat unrealistic and gave evidence of more than average cautiousness.

3) Negative discrepancy group. A negative D-score was defined as any score with a minus sign. All the six subjects falling into this group were mal-adjusted and in every case showed evidence of great insecurity. They were characterized by a tendency toward self-depreciation and a somewhat self-conscious attitude.

The manner in which they manipulated their estimates seemed to indicate a fear of failure and a need to insure success by keeping their estimates below their performance level. In view of the fact that none of the well-adjusted subjects fell into this group or showed a negative D-score, the hypothesis may be advanced that a negative D-score might be indicative of personal insecurity and maladjustive tendencies. This, however, would

have to be further tested with larger groups of subjects.

Summary

Level of aspiration behavior was studied in relation to personality adjustment in adolescents, as determined by the Rogers Test of Personality Adjustment. The task consisted of a modified symbol substitution task, referred to as the shorthand task.

The results indicate that the differences in D-scores and average deviations are significant at the 1 per cent level between the two groups.

Reaction to failure showed characteristic tendencies toward compensation and/or fear of failure in the maladjusted subjects, in contrast to greater realism for the well-adjusted ones. A negative discrepancy was found to be characteristic of the maladjusted subjects only.

Generally, it appears that the level of aspiration behavior seems to reflect underlying personality needs and wants, and that it might be used as another measure of personality adjustment (as defined in this study). Furthermore, these findings suggest that it should be possible to test the hypothesis that, as the personality needs and wants are changed by appropriate training or experiences, a change in the level of aspiration behavior would appear.

REFERENCES

(1) Frank, J. D. Recent studies of the level of aspiration. Psychol. Bull., 1941, 36, 218-225.

(2) Gardner, J. W. The relation of certain personality variables to the level of aspiration. J. Psychol., 1940, 9, 191-260.

(3) Gould, R., and Kaplan, N. The relationship of 'level of aspiration' to academic and personality factors. J. Social Psychol., 1940, 11, 31-40.

(4) Rogers, C. R. A test of personality adjustment. New York, Association Press, 1931.

(5) Sears, P. S. Level of aspiration in relation to some variables of personality; clinical studies. J. Social Psychol., 1941, 14, 311-336.

SCHOOL ABSENCE DUE TO SICKNESS IN THE WAR YEARS

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Illness in school children provides a sensitive index of the population's health level; such data, as measured in turn by school absence, have been collected in Hagerstown, Maryland, since October 1939. The present paper reports the over-all aspects of the data for five school years - October 1940 to May 1945.

The methods and the scope of the study have already been described in earlier publications (1, 2). Absenteeism among the school children of Hagerstown has been studied off and on for some twenty years by the U. S. Public Health Service. This city was selected in 1921 for one of the first morbidity surveys in the country because it was considered a typical community, neither completely industrial nor completely agricultural and having, in addition, a high proportion of stable American-born stock. Studies pertaining to other aspects of public health have been continued there since for this same reason, and especially because the civic and school authorities, the health department, and the population itself have all demonstrated a high and unusual degree of cooperation. While the war brought on an increased degree of industrialization, there was no great increase in the population - from 32,500 to 40,000 people.

The data are based on excuse slips which each absentee had to bring with him when he returned to school. The excuse slip provided information on the reason for absence, and in case the absence was due to sickness, told what the illness was, how long the child was ill, and whether a physician was called. These absence slips were collected monthly and tabulated. While a check was made with the physician whenever it appeared warranted, it is obvious that only broad categories of disease can be employed in the study of these data. As for the accuracy of the written excuses, what Collins said in 1924 still holds true: "A teacher, particularly in the lower grades, is usually familiar with a great many of the details of the lives of her pupils, and it is felt that she is therefore in a position to get an accurate report as to whether the absence was due to sickness or some other cause" (3).

For the purpose of this paper, the illnesses - because they are so frequently given inexactly on the excuse slips - will be presented in five principal groups. The respiratory diseases

make up the first two groups: "colds" and "other respiratory." In the latter are included grippe, influenza, pneumonia, bronchitis, etc. The third category, "digestive," consists of the gastro-intestinal disturbances, often indefinite, to which children are so prone. "Headaches" occur frequently enough to be set up as a fourth category. The major communicable diseases which affect children are included in the fifth category, "other sickness." This category covers chickenpox, mumps, measles, and a miscellany of conditions not covered elsewhere.

All the white elementary schools and the junior high schools were included in the study. Table 1 shows the average enrollment for the school years 1940-1945. The months of September and June were not included because of the preoccupation of the school authorities with opening and closing the school year. For reasons beyond control the study could not be completed for the school year 1941-42, but had to be cut off at the end of February 1942. It will be observed from the table that the data being presented are based on an annual enrollment of about 6,500 children. The average school month was 20 days, making the average monthly number of children-school days approximately 130,000.

TABLE 1

ATTENDANCE IN HAGERSTOWN, MARYLAND, SCHOOLS IN A FIVE-YEAR PERIOD* (WHITE CHILDREN ONLY)

Age (years last birthday)	Average number of children				
	1940-41	1941-42	1942-43	1943-44	1944-45
All ages	6,505	6,669	6,507	6,168	6,465
Under 8	1,459	1,413	1,528	946	1,089
8 and 9	1,092	1,102	1,086	913	1,025
10 and 11	1,114	1,133	1,218	1,051	982
12 and 13	1,233	1,305	1,241	1,316	1,308
14 and over	1,607	1,716	1,434	1,942	2,061

*Based on the months October through May for 1940-41 and 1942-45, and October through February for 1941-42.

One rate is employed throughout for the sake of simplicity (except in Table 3), namely, the number of days absent because of sickness per 100 children-school days. Thus, the data will show the total effect of the different diseases upon school ab-

sence, rather than their incidence. For any specific cause the formula is:

$$\frac{\text{Days absent in month for specific cause} \times 100}{\text{Children enrolled} \times \text{number of school days in month}}$$

The rates for all ages combined have been adjusted to the age distribution of all the white children attending Hagerstown schools in 1940-41 (boys and girls). This adjustment is made by 1) calculating the age specific rate for the years following 1940-41, 2) multiplying each age specific rate by the proportion of children in that age group in 1940-41, and 3) summing these products to get the adjusted rate for all ages combined.

The rates for the different causes vary widely and there are marked differences in their effect upon the rates for "all sickness." The percentage distribution of days of illness by cause, for the five years combined, is shown for each month in Table 2. In the Fall, the respiratory conditions account for 40 to 50 percent of all days of absence due to sickness; in the Winter they are accountable for over 60 percent of such absence; in the Spring the percentage is about 30. Absences due to digestive disturbances and headaches are highest relatively at the beginning and end of the school year taking in 20 percent of all sickness-days. Other sicknesses reach their peak in the Spring when half of all days of sickness absence may be ascribed to these causes. At this time of the school year, the incidence of such communicable diseases as measles and whooping cough is highest.

TABLE 2

PERCENTAGE DISTRIBUTION OF DAYS LOST IN EACH SCHOOL MONTH ACCORDING TO BROAD SICKNESS CATEGORIES HAGERSTOWN WHITE SCHOOL CHILDREN, 1940-45

Sickness category	School month:							
	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May
Colds	26.0	28.7	32.9	36.2	30.6	25.8	18.3	15.1
Other respiratory	18.1	21.5	34.3	26.7	25.8	24.0	18.3	17.4
Digestive	15.2	13.8	8.1	9.0	10.9	12.5	12.4	16.4
Headache	5.5	4.5	3.3	2.9	3.7	3.9	3.8	5.3
Other sickness	35.2	31.5	21.4	25.2	29.0	33.8	47.2	45.8
All sickness	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

Absenteeism Rates 1940-1945

In Figure 1 are shown the month by month absenteeism rates during five school years. The figure consists of six panels, one for absenteeism due to sickness of any kind and one for each of the categories into which the illnesses have been divided as described above. Each line in a panel describes a different year.

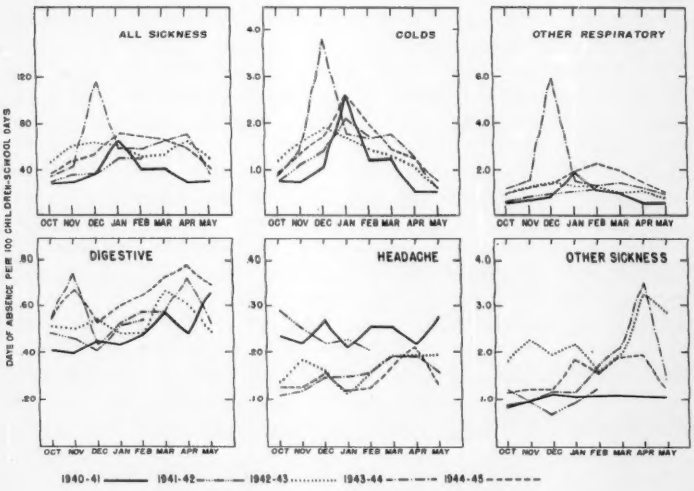

Figure 1. Days of absence due to sickness per 100 children-school days: all causes and certain broad groups of causes. Hagerstown white school children, 1940-45.

All sickness. A not unexpected finding for this climate is that absence from school for reasons of illness occurs most frequently during the winter months. The respiratory diseases, it has been pointed out, are the greatest contributory factors in the all-illness rates, and these diseases customarily take their highest toll during December, January, and February. The

school year 1943-44 was marked by a short-lived but sharp outbreak of influenza and grippe in December. In that year, the rate for all sickness rose from 3.3 days of absence per 100 children-school days in October to 11.3 in December, and dropped to 5.3 in January. Largely because of an upturn in measles incidence, there was an increase in the rate to 6.8 in April, followed by a decrease to 3.5 in May. In 1944-45, when apparently no serious outbreaks of any disease occurred, there was an almost regular rise in rate from 3.6 days in October to 6.9 days in January, followed by more gradually decreasing rates to 3.7 days in May.

Colds and other respiratory diseases. The effect that the respiratory diseases has on the total picture of morbidity in school children is brought out strikingly by the similarity between the graphs for these diseases and the graph for all sickness (with exceptions in the Spring months). Colds, of course, are by far the greatest single cause of school absence due to illness. In addition, the incidence of the other respiratory diseases, for many of which "colds" are a preliminary manifestation, is highly connected with the incidence of colds. The association is partly due to differences in reporting what was very likely the same cause; e.g., there is clear correspondence between the reporting of influenza and of colds in December 1943, owing to the similarity in their manifestations.

Digestive disorders. The amount of absence for digestive disorders is quite serious; in the beginning and end months of the year they account for a sixth of all illness absenteeism. Differences among the years are small, although between 1940 and 1945 there is to be remarked a tendency for the over-all rates to increase. In 1940-41, the range in rates was from 0.39 to 0.66 days per 100 children-school days; in 1944-45, they ranged from 0.55 to 0.77.

Headaches. The absence rate because of headaches is fairly constant through the school year. However, a trough is to be observed in mid-year, suggesting the existence of some kind of inverse relationship between headaches and colds, in the sense that when colds are prevalent, they furnish a more urgent excuse for absence for those children prone to headaches. A similar situation would appear to exist for the digestive diseases.

Other sickness. This group shows little seasonal trend outside a tendency to rise slightly in the spring of "normal" years. Peaks in the curves for other years can usually be traced to outbreaks of some communicable disease; in the present instance, the high peaks to be observed for April 1943 and 1944 were due to outbreaks of measles.

Other absences. To complete the picture of school morbidity

it is necessary to point out the extent of absenteeism which was not attributed to illness. Such absence maintains a fairly even rate of 2 to 3 days per 100 children-school days. It reaches its peak in December and January, presumably because of weather conditions and also because of a desire on the part of the parents to prevent infection during outbreaks of colds and influenza.

Age Differences

Figure 2 shows the rates for illness absenteeism among five age groups. In general, colds and "other sickness" drop sharply

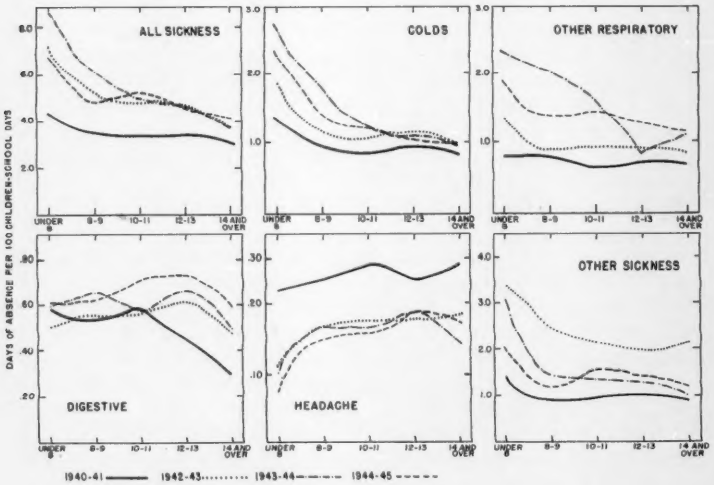

Figure 2. Age differences in absence due to sickness: all causes and certain broad groups of causes. Hagerstown white school children, 1940-45.

after the age of 7 years, or the first two years of school, level off at ages 8 through 13 years and drop again after 13 years.

Children 6 and 7 years old are absent because of illness on an average of 6 days per 100 children-school days, children 8 through 13 years average about 4.5 days, and children over 13 (attending elementary and junior high schools) about 3.5 days. Colds account for 2 days of absence per 100 children-school days in the youngest group, for 1 day of absence in the oldest group.

Other respiratory diseases present a similar pattern to that for colds, but the differences between the older and younger children are less marked. Absence due to digestive disorders

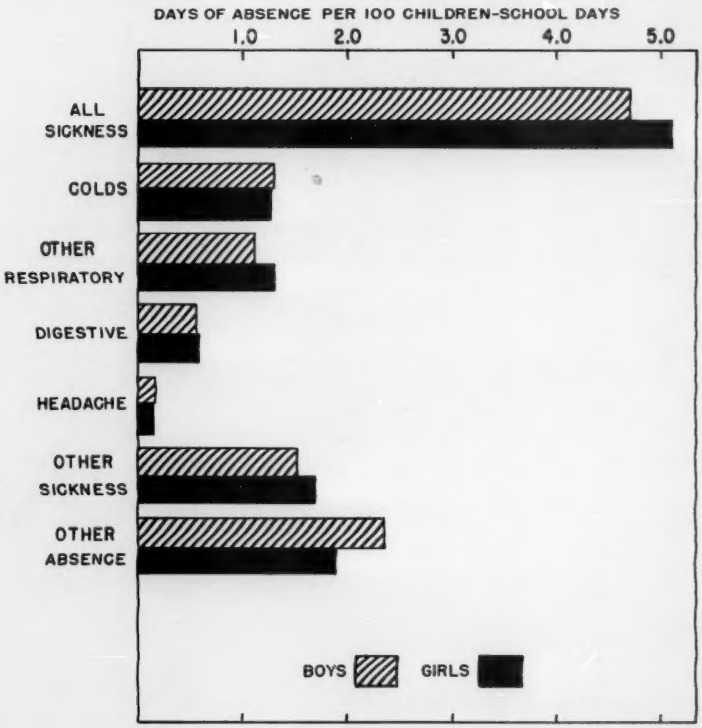

Figure 3. Differences between boys and girls in absence due to sickness: all causes and certain broad groups of causes. Hagerstown white school children, 1940-45.

and headaches are inclined to rise with age, although absence due to the former does not increase very sharply.

Sex Differences

The higher absenteeism among girls shown in Figure 3 is in agreement with the well-known findings of other investigations. For all sickness combined, this excess is about 0.4 of a day per 100 children-school days. As Figure 3 shows, it is largely the sum of an excess in days lost for other respiratory diseases and for other sickness. Differences between the sexes for the other illness categories are not significant. As for absence not due to illness, the boys exceed the girls by half a day per 100 children-school days.

Comparison with Earlier Data

Since records were collected on school absenteeism in Hagerstown in the early 1920's, some gauge can be made of differences that have occurred over an extended time. Table 3 compares the number of days lost per 100 children in a school year for 1923-25, 1939-40, and 1941-45. The data for 1939-40 are shown separately since they have already been so presented (1) and since the observations that were made in that paper are confirmed by the later findings.

TABLE 3

DAYS OF ABSENCE FROM SICKNESS AND FROM OTHER CAUSES IN HAGERSTOWN, MARYLAND, SCHOOLS IN 1923-25, 1939-40, AND 1940-45 (WHITE CHILDREN ONLY)

	Age in years					
	Under 8	8-9	10-11	12-13	14 and over	All ages
Sickness:						
1923-1925	1,068	789	627	610	523	738
1939-1940	1,260	893	721	738	655	824
1940-1945	1,179	869	822	791	660	849
Other causes:						
1923-1925	473	499	504	681	627	557
1939-1940	337	291	362	422	493	396
1940-1945	291	323	390	441	435	382
All causes:						
1923-1925	1,541	1,288	1,131	1,291	1,150	1,295
1939-1940	1,597	1,184	1,083	1,160	1,148	1,220
1940-1945	1,470	1,192	1,212	1,232	1,095	1,231

The most striking fact about the table is the increase in absence due to sickness in all age groups. In the period 1940-45 the relative number of school days lost on account of illness was 15 percent greater than in the school year 1923-25. At the same time, days lost from causes other than sickness decreased by 30 percent. But that is not to say that children (or parents) now attribute to illness what they formerly attributed to other causes. The decrease in the latter is far greater than the increase in absence due to sickness for all but the 10-11 year age group. Moreover, the increase in sickness absence is least and the decrease in absence for other causes highest in the two youngest age groups.

Summary

School absenteeism among white school children in Hagerstown has been examined for the five school years, 1940-45, and compared with earlier studies. In general:

1. Sickness accounts for 4 days of absence per 100 children-school days at the beginning and end of the school year; mid-month rates are higher, about 6 days, but irregular, depending on the incidence of colds and other respiratory diseases. A peak of 11.3 days was reached in December 1943.
2. Colds and other respiratory diseases account largely for the over-all sickness rate during the Winter months. During the influenza outbreak of December 1943, there were 3.7 days of absence per 100 children-school days because of colds and 5.8 days of absence because of other respiratory diseases.
3. Digestive disorders and headaches display no marked seasonal variation, except for a tendency to drop during the winter months. The absence rate for digestive disease is usually 0.5-0.6 days per 100 children-school days. Headaches are responsible for 0.15 to 0.25 days of absence.
4. The course of absence for other sickness is marked by peaks when outbreaks of communicable disease occur. Highest peaks were observed in April of 1943 and 1944 when measles was prevalent. Lesser peaks in the Fall and Winter of the 1942-43 years were caused by mumps and chickenpox.
5. Days lost for sickness are highest in the younger age groups. On the other hand, the relative number of days lost for absence other than sickness increased

with age.

6. School days lost because of sickness are higher for girls than for boys. Boys lose more days for reasons other than illness.
7. A comparison with 1923-25 data shows that in all age groups there has been a considerable increase in absence due to sickness. At the same time a marked reduction has taken place in the days lost for reasons other than illness.

Conclusion

Data on school absence for sickness and other causes in a five year period - of wartime - show a curious admixture of irregularity and consistency. The rates for all morbidity causes from year to year, expressed in this paper as the number of days absent per 100 children-school days, show no definite pattern or direction, each year establishing itself at a different level. Yet on these levels a regular seasonal course can be discerned during years and seasons when no notable outbreaks of disease occurred.

That outbreaks of colds and other respiratory ailments, particularly influenza, were closely connected, through diagnoses or other reasons, can readily be seen. On the other hand, an inverse relationship is to be observed between absence for respiratory causes and for the digestive diseases and headaches.

The age and sex differences that were found confirm other studies. Also confirmed is a tentative thesis based on 1939-1940 data that absenteeism because of sickness had increased over 1923-1925.

No relation to the war is to be discerned in these illness rates; the outbreaks that occurred - in influenza, measles, mumps, chickenpox - were mild in form. The shortage of physicians and the reduction in standards of living in the path of war gave cause to fear the worst concerning the nation's health. Fortunately, those fears have proved in the main to have been groundless.

REFERENCES

(1) Ciocco, A., Cameron, W. R., and Bell, E. A comparison of the morbidity of Hagerstown, Maryland, school children in 1921-1925, 1935-1936, and 1939-1940. Milbank Mem. Fund Quart., 1941, 19, 375-401

(2) Ciocco, A., and Altman, I. Sickness absenteeism among white school children in Hagerstown, Maryland, 1940-43. Child Development, 1944, 15, 81-88.

(3) Collins, S. D. Morbidity among school children in Hagerstown, Maryland. Pub. Health Rep., 1924, 39, 2391-2420.

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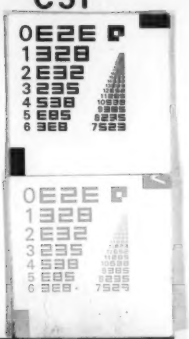
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